



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/691,352	10/18/2000	Duane M. Pinault	55126USA3A.002	3971

32692 7590 08/04/2004

3M INNOVATIVE PROPERTIES COMPANY  
PO BOX 33427  
ST. PAUL, MN 55133-3427

EXAMINER
----------

NORDMEYER, PATRICIA L.

ART UNIT	PAPER NUMBER
----------	--------------

1772

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/691,352

Applicant(s)

PINAULT ET AL.

Examiner

Patricia L. Nordmeyer

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19, 26-31, 35 and 37-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19, 26-31, 35 and 37-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Repeated Rejections*

1. The 35 U.S.C. 103 rejection of claims 1 – 19, 26, 27, 30, 31 and 35 over Tsuei is repeated for reasons previously of record in the paper dated October 10, 2003.

Tsuei discloses an article with a plurality of ceramic granules (Column 11, lines 47 – 51 and Figure 1, #16) bonded to a polymeric film (Column 11, lines 28 – 30 and Figure 1, #11) by a radiation curable (Column 4, lines 41 – 44) aliphatic urethane acrylic copolymer (Column 4, lines 30 – 31). A variety of items may be added to the curable coating including pigments, dyes, ultraviolet absorbers, ultraviolet scavengers, fillers and adhesion promoters (Column 7, lines 26 – 37). In order to improve adhesion to the coatings, the film may be primed (Column 11, lines 43 – 45). The article may also be formed from a free-standing coating with a layer of adhesive to attach particles to the surface (Column 12, lines 26 – 45). A size coating, sealant, of varying thickness is placed over the particles, completely covering some of the particles, and adhesive layer to help bond the particles to the film (Column 10, lines 39 – 59). The article may be used as a floor covering (Column 9, lines 59 – 64). The product has white ceramic granules (Column 11, line 52) adhered to a film with transparent adhesive (Column 10, lines 63 – 65) that was tested for flexibility, pliability, (Column 25, lines 14 – 24) and had a tensile elongation of 112% (Column 25, lines 37 – 40).

Art Unit: 1772

One of ordinary skill in the art would have recognized that the claimed integrated granule product would be pliable as determined by the flexibility test according to ASTM D-228-00 and ASTM D-882.97 and the aesthetic color of granules are not affected by the cured adhesive since Tsuei teaches a composition made with ceramic granules adhered to a service using an acrylated aliphatic urethane, which are the same parameters of the claimed invention. Therefore, one of ordinary skill in the art would readily determine the optimum flexibility and color affects depending on the end desired results in the absence of unexpected results.

Tsuei teaches solid ceramic granules instead of ceramic coated granules. The solid granules are performing an equivalent function to the Applicant's ceramic coated granules, unforeseen of any unexpected results from the coated ceramic granules. If unexpected results are present from having the coated granules instead of solid particles, these results need to be presented to show that the granules are not equivalent functions.

2. The 35 U.S.C. 103 rejection of claims 28, 29 and 37 – 39 over Tsuei is repeated for reasons previously of record in the paper dated October 10, 2003.

Tsuei discloses an article with a plurality of ceramic granules (Column 11, lines 47 – 51 and Figure 1, #16) bonded to a polymeric film (Column 11, lines 28 – 30 and Figure 1, #11) by a radiation curable (Column 4, lines 41 – 44) aliphatic urethane acrylic copolymer (Column 4, lines 30 – 31). A variety of items may be added to the curable coating including pigments, dyes, ultraviolet absorbers, ultraviolet scavengers, fillers and adhesion promoters (Column 7, lines 26

Art Unit: 1772

– 37). In order to improve adhesion to the coatings, the film may be primed (Column 11, lines 43 – 45). The article may also be formed from a free-standing coating with a layer of adhesive to attach particles to the surface (Column 12, lines 26 – 45). A size coating, sealant, of varying thickness is placed over the particles, completely covering some of the particles, and adhesive layer to help bond the particles to the film (Column 10, lines 39 – 59). The article may be used as a floor covering (Column 9, lines 59 – 64). The product has white ceramic granules (Column 11, line 52) adhered to a film with transparent adhesive (Column 10, lines 63 – 65) that was tested for flexibility, pliability, (Column 25, lines 14 – 24) and had a tensile elongation of 112% (Column 25, lines 37 – 40). However, Tsuei fails to disclose the article being a roofing shingle or roll of roofing material, wherein the integrated granule product forms the exposed surface layer of a roofing material and wherein the integrated granule product is suitable as an exposed surface layer of a roofing material.

One of ordinary skill in the art would have recognized that the claimed integrated granule product would be pliable as determined by the flexibility test according to ASTM D-228-00 and ASTM D-882.97 and the aesthetic color of granules are not affected by the cured adhesive since Tsuei teaches a composition made with ceramic granules adhered to a service using an acrylated aliphatic urethane, which are the same parameters of the claimed invention. Therefore, one of ordinary skill in the art would readily determine the optimum flexibility and color affects depending on the end desired results in the absence of unexpected results.

Art Unit: 1772

Tsuei teaches solid ceramic granules instead of ceramic coated granules. The solid granules are performing an equivalent function to the Applicant's ceramic coated granules, unforeseen of any unexpected results from the coated ceramic granules. If unexpected results are present from having the coated granules instead of solid particles, these results need to be presented to show that the granules are not equivalent functions.

Regarding the limitations of the article being a roofing shingle or roll of roofing material, wherein the integrated granule product forms the exposed surface layer of a roofing material and wherein the integrated granule product is suitable as an exposed surface layer of a roofing material in claims 28 and 37 – 39, it has been held that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

3. The 35 U.S.C. 102 rejection of claims 1, 10, 12, 16, 26, 27, 28, 35 and 37 – 42 as anticipated by George et al. (USPN 5,484,477) is repeated for reasons previously of record in the paper dated March 10, 2004.

George et al. disclose an integrated granule product made with ceramic-coated slate base

Art Unit: 1772

granules (Column 7, lines 1 – 2) that are covered with a thin film composition (Column 7, lines 4 – 6), where the granules are being adhered to the asphalt surface of a shingle backing (substrate) by the thin film coating (Column 7, lines 7 – 8). Included in the thin film coating is an adhesion promoter (Column 26 – 27) such as silicon resins (Column 7, line 41), a cured adhesive material, there by making a supporting cured adhesive film. The ceramic-coated granules are on the exposed surface of the shingle (Column 7, lines 50 – 53).

### *Response to Arguments*

4. Applicant's arguments filed June 20, 2004 have been fully considered but they are not persuasive.

In response to Applicant's argument that the Examiner has offered no evidence that any such equivalency (whole ceramic versus coated with a ceramic) is recognized in the prior art and the Applicant can find no such evidence in Tsuei, Tsuei does fail to teach the ceramic coated granule; however, Tsuei does teach a solid ceramic granule. The claim limitations of the invention do not disclose the granular material being coated. Due to the broad language of the claim, the granule could be a ceramic granule coated with a ceramic material. It would be obvious to one of ordinary skill in the art that a ceramic granule coated with a ceramic material would have the same structure as Tsuei, a completely ceramic structure. Also, the granule is being used for the same purpose, a coating that is exposed on the surface of a floor covering wherein the ceramic material is in contact with the materials of the invention. Therefore, it

Art Unit: 1772

would be obvious to one of ordinary skill in the art that the ceramic granule of Tsuei is performing an equivalent function to the Applicant's ceramic coated granule.

In response to Applicant's argument that claims 28 and 37 – 39 are not intended use claims but structured articles, the way the claims are written, the limitations of claims 28 and 37 – 39 do not clearly come across as structural limitations, but intended use of the granule product. The claims refer to articles through claim 26, but then leave out the substrate mentioned. It appears that the combination of the a substrate and the granule product is what makes up the roofing material without the addition of any other material or structure. Therefore, claims 28 and 37 – 39 are an intended use of the combination of the granule product and the substrate to which it is attached.

In response to Applicant's argument that George et al. fails to disclose the creation of a separate film and curing or solidifying the oil coating on the granules at all, much less to solidify them as a separate film, George et al. discloses that a silicone resin (Column 7, line 41) could used as an adhesion agent in combination with the film of the silicon oil, which is a separate film. The silicone resin, which is used as a cured adhesive material, is a cured material. As defined by Merriam-Webster ([www.webster.com](http://www.webster.com)), a resin is "any of a large class of synthetic products that have some of the physical properties of natural resins but are different chemically and are used chiefly in plastics". A plastic is a cured material that could be used as a cured adhesive; therefore, George et al. does disclose a cured adhesive material and a film.

Art Unit: 1772

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Nordmeyer whose telephone number is (571) 272-1496. The examiner can normally be reached on Mon.-Thurs. from 7:00-4:30 & alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1772

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patricia L. Nordmeyer  
Examiner  
Art Unit 1772

*pln*  
pln

*Harold Pyon*  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

*7/29/04*